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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,052

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Shahab M. Sayeedi

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EXAMINER

JAIN, RAJ K

ART UNIT

PAPER NUMBER

2416

NOTIFICATION DATE

DELIVERY MODE

06/26/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.US@motorola.com

Office Action Summary	Application No.	Applicant(s)	
	10/728,052	SAYEEDI, SHAHAB M.	
	Examiner	Art Unit	
	RAJ JAIN	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-18, 25-27 and 29-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-18, 25-27 and 29-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-18, 25-27, 29-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al. (USP 6,757,270 B1) in view of Agrawal et al (USP 5,530,912).

Regarding claim(s) 15, 33, 42 and 48 Kumar teaches a method for providing forward link packet data service to mobile stations (MSs) in a mobile communication system (Fig.1, abstract)), the method comprising:

providing, by a source base station (BS) (Figs. 4-5, primary BS as source), data for transmission to the MS via a forward link (data transmitted to MS(active) as shown in Fig. 5A; BS transmits data bursts via forward link to MS; col 15 lines 65 - 67); receiving an indication that the MS intends to switch from a forward link of a serving cell to a forward link of a target cell for data transmission service (Fig. 9, illustrates reverse link two way soft handoff, in other words from source BS to target BS where the mobile informs the source BS it's intention of moving to target BS; see also Fig. 5b; col 15 lines 17-23).

Kumar fails to disclose wherein the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell and providing such indication to the MS via the forward link of the target cell.

Agrawal discloses wherein the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell and providing such indication to the MS via the forward link of the target cell (Figs. 3 & 4; col 4 lines 10-19). Agrawal discloses a technique whereby a mobile traversing towards a target cell will reduce the probability of handover failure or drop of communications via a reservation

scheme that the target cell allocates channels to mobiles (if a channel is available) or otherwise a non-available channel indication is sent to the mobile accordingly and the mobile is placed in queue awaiting channel assignment.

Thus it would have been obvious at the time the invention was made to incorporate the teachings of Agrawal within Kumar so as to improve handover processing within drop in communications of a traversing mobile unit from one station to another.

Regarding claim(s) 16, Kumar discloses wherein receiving the indication that the MS intends to switch comprises receiving the indication by the source BS from the MS via the serving cell and wherein the source BS comprises the serving cell and is a serving BS of the MS (see Fig. 6, col 15 lines 39-63; col 16 lines 1-27)..

Regarding claim(s) 17 and 27, Kumar discloses wherein receiving the indication that the MS intends to switch comprises receiving the indication by the source BS from a serving BS and wherein the serving BS comprises the serving cell (Fig. 6, col 15 lines 39-63; col 16 lines 1-27).

Regarding claim(s) 18, Kumar discloses wherein receiving the indication that the MS intends to switch comprises receiving the indication by the source BS from a target BS and wherein the target BS comprises the target cell (Fig. 9, illustrates reverse link two way soft handoff, in other words from source BS to target BS where the mobile informs the source BS it's intention of moving to target BS; col 15 lines 17-23).

Regarding claim(s) 43, Kumar fails to disclose wherein the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell and providing such indication to the MS via the forward link of the target cell.

Agrawal discloses wherein the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell and providing such indication to the MS via the forward link of the target cell (Figs. 3 & 4; col 4 lines 10-19). Agrawal discloses a technique whereby a mobile traversing towards a target cell will reduce the probability of handover failure or drop of communications via a reservation scheme that the target cell allocates channels to mobiles (if a channel is available) or

otherwise a non-available channel indication is sent to the mobile accordingly and the mobile is placed in queue awaiting channel assignment.

Regarding claim(s) 44 Kumar discloses a general CDMA system for generic handoff processing (Fig. 9), Examiner takes official notice that BSC- BTS signaling interface is fundamental within a wireless network (see USP 6771621 as example).

Regarding claim(s) 38 and 41, Agrawal discloses subsequent to receiving the indication that the target cell is presently unavailable, receiving an indication that the target cell is available to provide data transmission service to the MS via the forward link of the target cell; sending an indication to the MS that the target cell is available to provide data transmission service to the MS via the forward link of the target cell (Figs. 3 & 4; col 4 lines 10-19). Agrawal discloses a technique whereby a mobile traversing towards a target cell will reduce the probability of handover failure or drop of communications via a reservation scheme that the target cell allocates channels to mobiles (if a channel is available) or otherwise a non-available channel indication is sent to the mobile accordingly and the mobile is placed in queue awaiting channel assignment.

Regarding claim(s) 25 and 26, Kumar discloses determining whether the target cell is presently available to provide data transmission service to the MS via the forward link of the target cell comprises sending an indication to a target BS that the MS intends to switch to the forward link of the target cell for data transmission service (general specs the procedure for switching BS is via the handoff procedures). Agrawal discloses wherein the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell and providing such indication to the MS via the forward link of the target cell (Figs. 3 & 4; col 4 lines 10-19).

Regarding claim(s) 29, 30, 37, 47, and 51 Kumar discloses sending the indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises sending the indication to the MS via a forward packet data control channel (F-PDCCH) of the serving cell (col 2 lines 16-22).

Regarding claim(s) 26, 36, 43, Kumar discloses determining whether the cell is presently available to provide data transmission service to the MS via the forward link of the cell comprises receiving an indication that the cell is presently unavailable to provide data transmission service to the MS via the forward link of the cell (col 18 lines 60-65).

Regarding claim(s) 31, 32, 39, 40, 45, 46, 49, and 50, Kumar discloses indicating to the MS that the cell will not provide data transmission service to the MS via the forward link comprises sending, by the cell, a Universal Handoff Direction message (UHDM) that indicates that the cell does not support a forward link (col 10 lines 6-24, primary base station active set indicates cells which inherently provide transmission on the forward and/or reverse links to appropriate mobiles).

Regarding claim(s) 34, 35, Kumar discloses determining whether the cell is presently available comprises determining, when creating an active set for the MS, whether the cell is presently available to provide data transmission service to the MS via the forward link of the cell (col 11 lines 30-52).

Response to Arguments

Applicant's arguments filed March 30, 2009 have been fully considered but they are not persuasive.

With respect to **35 USC § 103 obviousness rejection**, Applicant has failed to identify the specific claim(s) for which the argument is directed towards. The Examiner believes the independent claim 15 is representative of the other independent claims due to similar limitations for which the contention may apply and therefore use claim 15 as the representative claim to appropriately address Applicant's contention(s).

Applicant contends "the mobile station in Kumar sends pilot strength measurement messages, but Kumar's mobile station does not send an indication that it intends to switch from the current serving cell to a target cell."

Examiner respectfully disagrees, one skilled in the art of wireless communication systems and more specifically in CDMA technology will readily appreciate that "pilot strength" measurements' are provided to the base station (by the mobile) *signal strength* measurements (col 5 lines 49-65) of its own service cell **as well as neighboring base station signal strength measurements** (emphasis added). The pilot signal

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strength measurements is indicative (emphasis added) to the serving base station that the mobile is potentially switching from the current serving cell to a target cell due to a stronger pilot signal strength measurement (col 11 lines 1-12) from a neighboring base station. Furthermore Item c (col 11 lines 9-12) specifically states here in part;

*Mechanisms that efficiently **transfer control from one leg to another** (emphasis added) in case the mobile receives a much stronger pilot signal from a base station that is not currently the primary.*

Its clearly apparent from above that pilot signal strength measurements are indicative of the mobile intending to switch from the current serving cell to the target cell and therefore inherently obvious that a mobile device is sending a handoff request signal from the primary base station (i.e. the serving base station or cell) to the target base station based on a stronger pilot signal from one of the neighboring base stations.

Thus based on the foregoing reasoning the Examiner respectfully asserts that Kumar does teach the cited limitation of claim 15 and therefore the rejection to claim 15 is sustained.

Also the rejection to independent claims 33, 42 and 48 is sustained due to similar recited limitations as to claim 15.

Furthermore, the rejection to claims 16-18, 25-27, 29-32, 34-41, 43-47, 49-51, is sustained by virtue of i) dependency upon a rejected base claim and ii) limitations being met under appropriate cited art(s).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJ JAIN whose telephone number is (571)272-3145. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raj K. Jain/

Examiner, Art Unit 2416